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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,242	05/11/2001	Haruyasu Yamaoka	09952/057001/56329-US-KK	7873

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EXAMINER

PEREZ, JULIO R

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 11/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/854,242

Applicant(s)

YAMAOKA, HARUYASU

Examiner

Julio R Perez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,4,7 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 2-3,5-6,8-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: It is the examiner's opinion that the word "from" should be between the words "threshold" and "the" and NOT "form" on page 7, line 4, and the word "retrieves" should be between the words "then" and "the" and NOT "retrieve" on page 10, line 19.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 7, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Irvin (6,029,074).

Regarding claim 1, Irvin discloses a mobile terminal (Fig. 1) comprising: VOX controller (Control and signaling unit, (12)) means for stopping feeding power (col. 4, lines 6-9; col. 3, lines 29-32; col. 4, lines 48-51) to a part of a transmitter (26) or for saving the power to be supplied; operation controller (Control and signaling unit, (12)) means for controlling operation (the terminal radio possesses a power control unit, which limits the transmit power of the mobile terminal) of the VOX controller means;

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storage (Fig. 1, ref. 14) means for storing a plurality of thresholds (the memory (14) stores programs used by the mobile terminal (10), (col. 3, lines 59-62) and transmit power levels, hence thresholds, (col. 3, lines 12-22)) corresponding to a plurality of usage conditions (col. 3, lines 18-26); and usage condition detector means for determining in which one of the plurality of usage conditions the terminal is shifted in (the terminal determines whether the unit is operating in a hand-held mode or inserted into a cradle in a vehicle or connected to a docking station; col. 3, lines 18-20, col. 3, lines 52-54 and col. 5, lines 33-56), wherein the operation controller means is constructed to select one of the thresholds in correspondence with a detection result by the usage condition detector means and to operate the VOX controller means in accordance with the selected threshold (col. 5, lines 13-56).

Regarding claim 4, Irvin discloses a mobile terminal, wherein: the usage condition detector means is constructed to check whether the hands-free microphone is connected (a mechanical key provides indication of the mobile terminal being secured or captured by the docking station or cradle; col. 5, lines 38-44) and the handset is placed on a cradle (hand-held status is indicated by the absence of any signal that the terminal (hand-set) has been captured by the cradle) thereby to determine the terminal is shifted in the hands-free microphone usage condition (Capture by a vehicle's hands-free cradle (user condition) is indicated, in the presence of a docking station (flag = 0), by a data-communications clear-to-send signal on the terminal's system; col. 5, lines 45-47 and col. 5, lines 33-36; also see col. 3, lines 22-25).

Regarding claim 7, Irvin discloses a mobile terminal, wherein: the storage means further stores a plurality of thresholds each different from each other, which has the same unit for the same usage condition (Fig. 1, ref. 14, the program memory stores programs used by the terminal: the mobile has power class rating levels (thresholds), which allow the terminal to limit its transmit power when the unit is operated in a hand-held mode or as hands-free; hence, the power control logic verifies the status of the power-inhibit flag = 0 or flag = 1, which indicate the terminal is either used or operated as a hand-held or as a captured device respectively: both flags are power levels in the mobile terminal, and they correspond to power levels 000 = 2 dBW (or 1.58 Watts), and both belonging to Class-2RF power levels and with the same unit (dBW) for the same condition).

Regarding claim 10, Irvin discloses the mobile terminal (Fig. 1), wherein: the operation controller means is constructed to select a threshold corresponding to a predetermined manual entry of operating keypad (18) means from a plurality of thresholds (power caps A, B, and C (thresholds)) stored in the storage means and use thus selected threshold to operate the VOX controller means (the terminal can be operated in a hand-held mode to limit or adjust its transmit power: the terminal's power is capped by limiting the MAC to 101; that is, -14 dBW or approximately 0.040 Watts, minimum power consumption; col. 5, lines 57-67 and col. 6, lines 1-5; see also col. 6, lines 6-26 for explanation of the process taken for the operation controller to get into a power saving mode).

Allowable Subject Matter

4. Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art teaches the use of a mobile terminal to be operated either as hand-held or as a hands-free when placed in a cradle.

As per claims 2 and 3, the Applicant specifically teaches a mobile terminal, wherein: the usage condition detector means is constructed to detect a handset usage condition for processing voice input from a handset microphone for a voice transmission, a hands-free microphone usage condition for processing voice input from a hands-free microphone for the voice transmission, and an earphone usage condition for processing voice input from a headset microphone for the voice transmission. This limitation, in conjunction with all limitations of the independent claims, has not been taught or made obvious over the prior art of record.

As per claims 5 and 6, the Applicant specifically teaches the operation controller means selects at least one of thresholds having another unit different from the one unit to operate the VOX controller means in accordance with at least the selected other threshold, when the usage condition detector means determines another usage condition different from the one of usage conditions. This limitation, in conjunction with

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all limitations of the independent claims, has not been taught or made obvious over the prior art of record.

As per claims 8 and 9, the Applicant specifically teaches the storage of a plurality of bandwidth conditions corresponding to the plurality of usage conditions; and the operation controller means is constructed to select one of other bandwidth conditions each having a predetermined frequency bandwidth different from the one predetermined frequency bandwidth and use the bandwidth condition thus selected to operate the VOX controller means, when the usage condition detector means determines one of other usage conditions different from the one usage condition. This limitation, in conjunction with all limitations of the independent claims, has not been taught or made obvious over the prior art of record.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irvin (6,029,074).

Regarding claims 11 and 12, Irvin discloses a method of controlling a mobile terminal having a handset microphone and connectable to an external microphone (col. 3, lines 52-54), the method comprising the steps of: detecting which one of the microphones is in use (handheld or hands-free, handheld in cradle; col. 3, lines 17- 26);

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(Irvin further discloses a power control logic, which verifies a status of the power-inhibit flag to indicate whether the terminal is operating as a hand-held (handset microphone) or as a captured device (col. 5, lines 22-47); that is, if the power inhibit flag (threshold) is set to zero, which indicates capture of the terminal by a docking station or cradle, the power control logic adjusts RF power according to the threshold. Conversely, if the power-inhibit flag is set to one, which indicates hand-held use, the MAC (threshold or power level) is revised from 000 (=2dBW) to 010 (=2dBW), and the power control logic adjusts the power accordingly (col. 5, lines 26-32).)

Irvin lacks detection of a relating parameter to detect an insubstantial voice input period in order to save power during a silent period or the insubstantial voice input period.

However, Watanabe et al. disclose mobile stations (terminals or mobile stations) equipped with a VOX (Voice Operated Transmission) function by which transmission is turned ON/OFF according to the presence/absence of transmission data during a communication for saving power (col. 3, lines 42-45; col. 3, lines 64-67 and col.7, lines 1-9). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify Irvin's mobile terminal as to include a VOX (Voice Operated Transmission), which carries out transmissions ONLY when there is voice to be transmitted and turns off transmission when there is no voice to be transmitted, contributing, consequently, to power saving.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the art with respect to mobiles with power management features or saving modes.

US Pat. No. 5870685 to Flynn	Management based on battery capacity
US Pat. No. 6606490 to Rainish et al.	Power save by reducing reception time
US Pat. No. 6597929 to Han et al.	Reducing power consumption of a radio terminal
US Pat. No. 6026288 to Bronner	Controlling overall power consumption based on received RSSI
US Pat. No. 5884194 to Shiraki	Hands-free telephone
US Pat. No. 6480700 to Groe et al.	Device reduced level of current consumption
US Pat. No. 5230089 to Kindinger et al.	Voice operated transmitter
US Pat. No. 5761622 to Priest	Operation of a mobile battery operated radio
US Pat. No. 6535752 to Dent	Power saving during synchronization retries
US Pat. No. 6480476 to Willars	Sleep mode for mobile stations

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio R Perez whose telephone number is (703) 305-8637. The examiner can normally be reached on Monday - Friday, 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.



**SINH TRAN
PRIMARY EXAMINER**

JP
11/14/03